

# Virginia Occupational Safety and Health



**ISSUED**: December 1, 2007

**VOSH PROGRAM DIRECTIVE: 12-334** 

**SUBJECT**: Electrical Standard, Subpart S of Part 1910, §§1910.302 through 1910.308

#### A. Purpose.

This directive establishes enforcement policy and provides explanation of the Electrical Standard, Subpart S, to ensure uniform enforcement.

This Program Directive is an internal guideline, not a statutory or regulatory rule, and is intended to provide instructions to VOSH personnel regarding internal operation of the Virginia Occupational Safety and Health Program and is solely for the benefit of the program. This document is not subject to the Virginia Register Act or the Administrative Process Act; it does not have general application and is not being enforced as having the force of law.

## B. <u>Scope</u>.

This directive applies to all VOSH personnel.

#### C. Reference.

72 FR 7135 (February 14, 2007).

# D. <u>Cancellation</u>.

Not Applicable.

#### E. Action.

The Directors and Managers shall ensure that the guidelines in this program directive are followed and that compliance officers are familiar with the contents of the standard.

#### F. Effective Date.

December 15, 2007.

#### **G.** Expiration Date.

Not Applicable.

# H. <u>Background</u>.

On February 16, 1972, federal OSHA incorporated the 1971 edition of the National Fire Protection Association's (NFPA) National Electrical Code (NEC), NFPA 70-1971, by reference as its initial electrical standard for general industry. The Occupational Safety and Health Act of 1970 directed the Secretary to adopt existing national consensus standards as federal OSHA standards within two years of the effective date of the OSH Act. In incorporating the 1971 NEC by reference, federal OSHA made the entire 1971 NEC applicable to all covered electrical installations made after March 15, 1972. For covered installations made before that date, federal OSHA listed about 16 provisions from the 1971 NEC that applied. No other provisions of the 1971 NEC applied to these older installations, thus "grandfathering" them so that they were exempt from most of the requirements in the consensus standard. (72 FR 7138)

In 1981, federal OSHA revised its electrical installation standard for general industry and replaced the incorporation by reference of the 1971 NEC with relevant updated requirements from Part I of the 1979 edition of NFPA 70E. The revision simplified and clarified the electrical standard and updated its provisions to match the 1978 NEC (the latest edition available at the time) and structured to reduce the need for frequent revision to avoid becoming technologically obsolete. The first substantial changes came in the 1995 edition of NFPA 70E.

The 2000 edition of NFPA 70E contains a number of significant revisions, including a new, alternative method for classifying and installing equipment in Class I hazardous locations. NFPA recommended that federal OSHA revise its general industry electrical standards to reflect the latest edition of NFPA 70E, arguing that such a revision would provide a needed update to the OSHA standards and would better protect employees. This revised final rule responds to NFPA's recommendations with regard to installation safety. It also reflects federal OSHA's commitment to update its electrical standards, keep them consistent with NFPA standards, and ensure that they appropriately protect employees.

#### I. Summary.

Federal OSHA revised and updated the provisions contained in §§1910.302 through 1910.308 of the existing Subpart S electrical installation standard. It determined that electrical hazards in the workplace pose a significant risk of injury or death to employees, and that the requirements in the revised standard, which draw heavily from the 2000 edition of the National Fire Protection association's (NFPA) Electrical Safety Requirements for Employee Workplaces (NFPA 70E), and the 2002 edition of the National Electrical Code (NEC), are reasonably necessary to provide protection from these hazards. (72 FR 7136) [*Note: The 2000 NFPA 70E is based on the 1999 NEC.*]

The update to Subpart S applies to electrical installations and equipment utilized in workplaces in general industry and in shipyard employment, longshoring, and marine terminals. Installations exempted by Subpart S present special design considerations that are not adequately addressed in Subpart S, for

example, electric power transmission and distribution installations. Such transmission and distribution installations are typically installed where they are accessible only to specifically trained and skilled employees and where unqualified persons will not have access to these installations. (72 FR 7140-41)

This revision will provide the first update of the installation requirements in the general industry electrical installation standard since 1981. It focuses on safety in the design and installation of electric equipment in the workplace. It also includes a new alternative method for classifying and installing equipment in Class I hazardous locations; new requirements for ground-fault circuit interrupters (GFCIs) and new provisions on wiring for carnivals and similar installations.

Federal OSHA also removed and reserved Appendices B and C of the current Subpart S for future use because they did not contain any material.

The following sections were also impacted by the revised final rule:

- \$1910.6, Incorporation by reference, was amended by revising the introductory text to paragraph (e). Paragraph (e)(33), which read: "ANSI C1-71, National Electrical Code, IBR approved for \$1910.66 Appendix D(c)(22)(i) and (vii)" was removed and reserved. The introductory text to paragraph (q) was also revised by amending the address where NFPA materials could be purchased. Paragraph (q) (16) which read: "NFPA 70-1971, National Electrical Code, IBR approved for \$1910.66 App. D(c)(2)" was removed and reserved.
- \$1910.66, Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms, paragraph (c)(22)(i) of Appendix D, Existing Installations (Mandatory), was amended by substituting "Subpart S of this Part" for the "National Electrical Code, NFPA 70 1971; ANSI C1 1971 (Rev. of C1 1968)".
- §1910.399, Definitions applicable to this subpart, was amended by adding thirteen definitions, all but one of which are based on NFPA 70E-2000 and the 2002 NEC. These new definitions will help clarify the requirements in Subpart S. Other non-substantive changes were also made to the definitions.

<u>C. Ray Davenport</u> Commissioner

Attachment: 72 FR 7135 (February 14, 2007) or refer to:

http://www.osha.gov/FedReg\_osha\_pdf/FED20070214.pdf

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# Electrical Standard, Subpart S of Part 1910, §§1910.302 through 1910.308

As adopted by the

Safety and Health Codes Board

Date: June 26, 2007



# VIRGINIA OCCUPATIONAL SAFETY AND HEALTH PROGRAM

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

Effective date: December 15, 2007

16 VAC 25-90-1910.6, Incorporation by reference; 16 VAC 25-90-1910.66, Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms; 16 VAC 25-90-1910.302 – 16 VAC 25-90-1910.308, Electrical Standard, Subpart S of Part 1910; and 16 VAC 25-90-1910.399, Definitions Applicable to this Subpart When the regulations, as set forth in revised final rule to the Electrical Standard, Subpart S of Part 1910, §§1910.302 through 1910.308, with related amended standards for the following: §§1910.6, 1910.66, and 1910.399, are applied to the Commissioner of the Department of Labor and Industry and/or to Virginia employers, the following federal terms shall be considered to read as below:

Federal Terms VOSH Equivalent

29 CFR VOSH Standard

Assistant Secretary Commissioner of Labor and Industry

Agency Department

August 23, 2007 December 15, 2007